State of Alaska
FY2010 Governor's Operating Budget

Department of Natural Resources
Geological Development
Component Budget Summary

Component: Geological Development

Contribution to Department's Mission

Conduct geological and geophysical surveys to determine the potential of Alaskan land for production of metals, minerals, fuels, and geothermal resources, the potential geologic hazards to buildings, roads, bridges, and other installations and structures; and conduct such other surveys and investigations as will advance knowledge of the geology of the state. (AS 41.08)

Core Services

- Functions as the state's lead source and repository of Alaska geologic information and the primary source of information concerning Alaska's energy resources, mineral resources, and geologic hazards
- Continually gathers new field data, interprets, and publishes geologic information in emerging areas of critical interest related to energy supply, minerals deposits, and geologic hazards
- Provides the geologic information needed for economic diversification, revenue generation, hazards mitigation, infrastructure development, and resource management in the state of Alaska
- Plays a strategic role in the generation and maintenance of Alaska's economy through resource development, and in the public safety of its citizens with respect to mitigating natural geologic hazards
- Stimulates the discovery of minerals, coal, oil, gas, geothermal energy, construction-quality sand and gravel, and water by providing geologic-framework data on which to base industry resource-exploration
- Provides geologic data and assessments used by DNR management divisions, state departments, and municipalities. Geologic information provided to users outside DNR has been used to catalyze private sector exploration investment, plan natural-hazard mitigation and disaster preparedness in cities and villages, select transportation-corridor lands for Alaska, and to better design roads and other infrastructure
- Maintains the Alaska Geologic Materials Center (GMC), Alaska's archive of representative geologic materials from across the state. The collection, representing many millions of dollars in acquisition cost, includes oil- and gas-related samples, mineral-related and coal samples collected by DGGS and donated by industry and numerous Federal agencies. The samples provide the reference collection of materials used by the petroleum and mineral industry to guide new exploration ventures.
- Works collaboratively with the other Divisions in DNR and with Alaska-based federal agencies to make all public sector geologic resource data accessible via the Internet.
- Administers the Alaska Seismic Hazards Safety Commission and publishes its recommendations for improving state and local policies to reduce human casualties and economic losses from earthquakes and tsunamis.

End Result	Strategies to Achieve End Result
A: Hard-copy and digital geologic reports and maps for use in exploring for and managing energy and mineral resources and for mitigating geologic hazards Target #1: FY09 Target: 1,000 hard-copy geologic publications distributed in response to requests from industry, government, academia and the public Status #1: 2,277 publications distributed in FY08, far exceeding the target of 700.	**A1: Produce timely and reliable new energy-related geologic information in areas of poor geologic understanding and high energy resource potential** Target #1: FY09 Target: Six published reports on energy-related geology that assist the energy industry and state management agencies in developing conventional energy resources on state-interest lands Status #1: Eight reports generated in FY08, exceeding the target of six Target #2: FY09 Target: Zero reports on unconventional energy resource potential of state-interest lands (no currently funded program) Status #2: Zero reports published in FY08. Federally

	funded project completed in FY07. Target #3: FY09 Target: Ten presentations on energy-resource geology to industry, public, and government sectors. Status #3: Nineteen presentations made in FY08, significantly exceeding target of ten Target #4: FY09 Target: Zero new square miles of published, energy-related geologic mapping Status #4: Zero square miles published in FY08 toward target of 1,050. Several draft maps were completed that will be published in FY09. **A2: Produce timely and reliable new minerals-related geological and geophysical information in areas of limited information and high minerals resource potential** Target #1: FY09 Target: 600 square miles of published, minerals-related bedrock geologic mapping Status #1: Zero square miles published in FY08 toward target of 300. Draft maps were completed that will be published in FY09 Target #2: FY09 Target: 400 square miles of published airborne geophysical maps of minerals-interest lands Status #2: 965 square miles published in FY08, exceeding target of 750. Target #3: FY09 Target: 1,022 square miles of published surficial geologic maps that provide information on placer-mineral potential and/or construction-materials resources Status #3: Zero square miles published in FY08 toward the target of 1,300. These maps are in review and will be published in FY09. Target #4: FY09 Target: Four new legacy or private-sector datasets of minerals-related geologic information made available online Status #4: Four datasets published in FY08, exceeding the target of three. Target #5: FY09 Target: Two published reports providing statistical information on Alaska's mineral industry Status #5: Two reports published in FY08, meeting the target Target #6: FY09 Target: Five presentations to industry, public, and government sectors on mineral-resource potential and the status of Alaska's mineral industry Status #6: 22 presentations in FY08, far exceeding the target of four.

End Result	Strategies to Achieve End Result
B: Timely online delivery of geological and geophysical information to support resource development, attract new industry and provide pre-disaster hazard mitigation for continued economic growth Target #1: FY08 Target: 3 million visits (user sessions) to retrieve information and data from the Division of Geological and Geophysical Surveys (DGGS) and Alaska Volcano Observatory (AVO) Web sites Status #1: 3.8 million visits to the DGGS and AVO websites in FY08, exceeding the 3 million visit target	**B1: Produce reliable new information on geologic hazards in areas at risk of economic losses and casualties from disasters** Target #1: FY09 Target: Two peer-reviewed reports or maps providing improved assessment of geologic hazards that pose significant risks to public safety Status #1: Four volcano hazard reports published in FY08, exceeding target of two. Two additional reports on hazards in the proposed gas pipeline corridor along the Alaska Highway are in review and will be published in FY09.

End Result	Strategies to Achieve End Result
C: Timely responses to all public & agency requests for information and assistance on energy resources, mineral resources, geologic hazards, and engineering geology Target #1: FY08 Target: 100 percent timely responses to requests for geologic information needed by exploration companies, resource planners, emergency managers, scientific organizations, land managers, and developers Status #1: 100% timely responses to 997 requests for geologic information in FY2008, achieving the target of 100%	**C1: Provide improved public outreach and education regarding the geology of Alaska** Target #1: FY09 Target: Ten public presentations on the geology of Alaska, including information displays at conferences, speaking at or teaching classes, and technical talks at public meetings Status #1: 58 public presentations given in FY08, significantly exceeding the target of 10.

End Result	Strategies to Achieve End Result
D: Improved public access to nonproprietary rock samples and to the corresponding processed samples in support of private-sector resource exploration and geological education Target #1: FY08 Target: 100 percent satisfied users of the Geologic Materials Center, based on written evaluations Status #1: 100 percent satisfied users in FY08, based on 13 written evaluations. There were 497 visits to the GMC during the fiscal year.	**D1: Provide increased availability of processed samples at the Geologic Materials Center (GMC)** Target #1: FY09 Target: 3,000 new processed geological samples (microfossil/petrographic slides) received at the Geologic Materials Center Status #1: 2,074 new processed samples received in FY08 toward the target of 3,000

Major Activities to Advance Strategies

- Conduct field-geologic and laboratory studies needed to develop geologic maps and reports on the geology of Alaska
- Develop energy basin geologic reports including reservoir and source rock characterization, paleontological, and structural cross sections
- Publish minerals-related geologic reports, occurrence maps, geochemical data, geochronologic
- Deliver presentations at public and industry forums to disseminate new information on mineral and economic related geology
- Publish maps and reports on placer-mineral and construction-materials resources
- Publish maps and reports on the hazards associated with volcanoes, tsunamis, landslides, and other hazards

Major Activities to Advance Strategies

reports, structural cross sections, and databases
- Deliver presentations at public and industry forums to disseminate new information and improve understanding of energy related geology
- Respond to public and agency requests for information on energy resources, mineral resources, and geologic hazards
- Conduct and publish airborne geophysical surveys
- Publish annual Mineral Industry Summary Reports
- Develop and maintain an enterprise database of geospatially referenced geological and geophysical information
- Deliver presentations to improve public understanding of geologic hazards
- Design and maintain a website to provide online access to Alaska geologic data and publications
- Maintain and organize an archive of publicly accessible geologic samples from industry, government, and academia.
- Respond to legislative and administration requests for information and assistance on geological issues

FY2010 Resources Allocated to Achieve Results

FY2010 Component Budget: $7,624,800

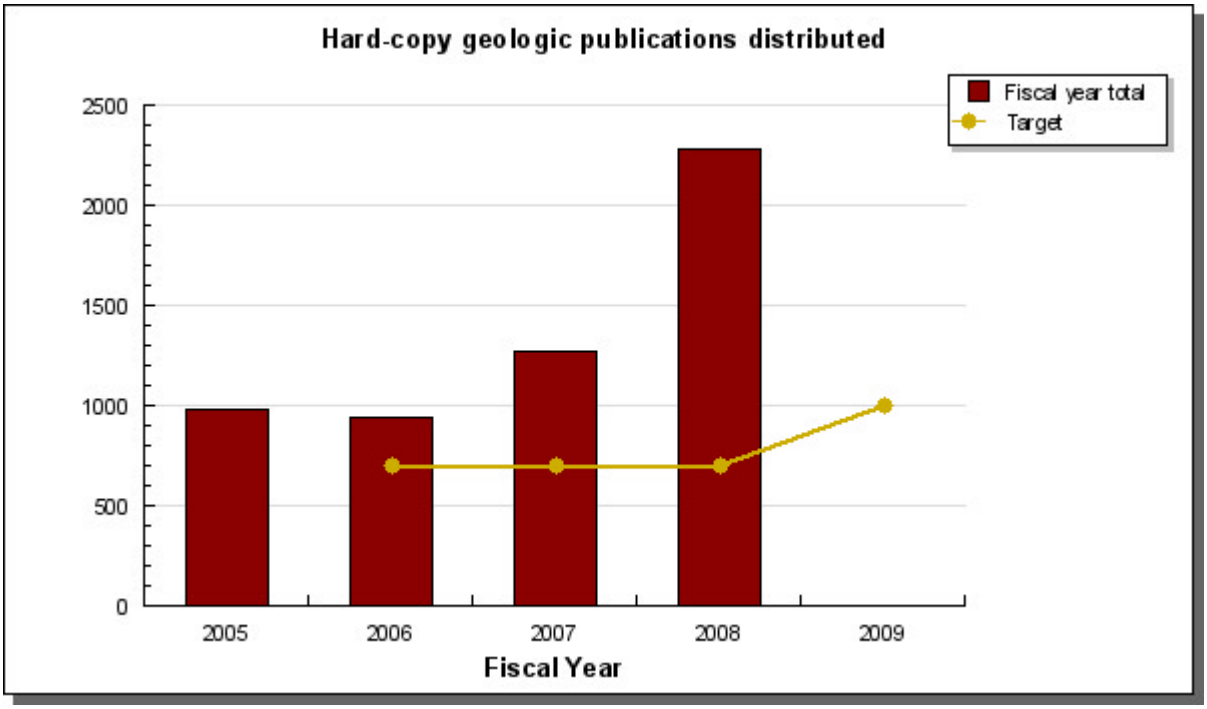
Personnel:	
Full time	40
Part time	0
Total	40

Performance

A: Result - Hard-copy and digital geologic reports and maps for use in exploring for and managing energy and mineral resources and for mitigating geologic hazards

Target #1: FY09 Target: 1,000 hard-copy geologic publications distributed in response to requests from industry, government, academia and the public

Status #1: 2,277 publications distributed in FY08, far exceeding the target of 700.



Methodology: Number of hard-copy reports or digital (CD or DVD) geologic products distributed during the fiscal year

Hard-copy geologic publications distributed

Fiscal Year	Fiscal year total	Target
FY 2009	0	1000
FY 2008	2277	700
FY 2007	1269	700
FY 2006	938	700
FY 2005	979	

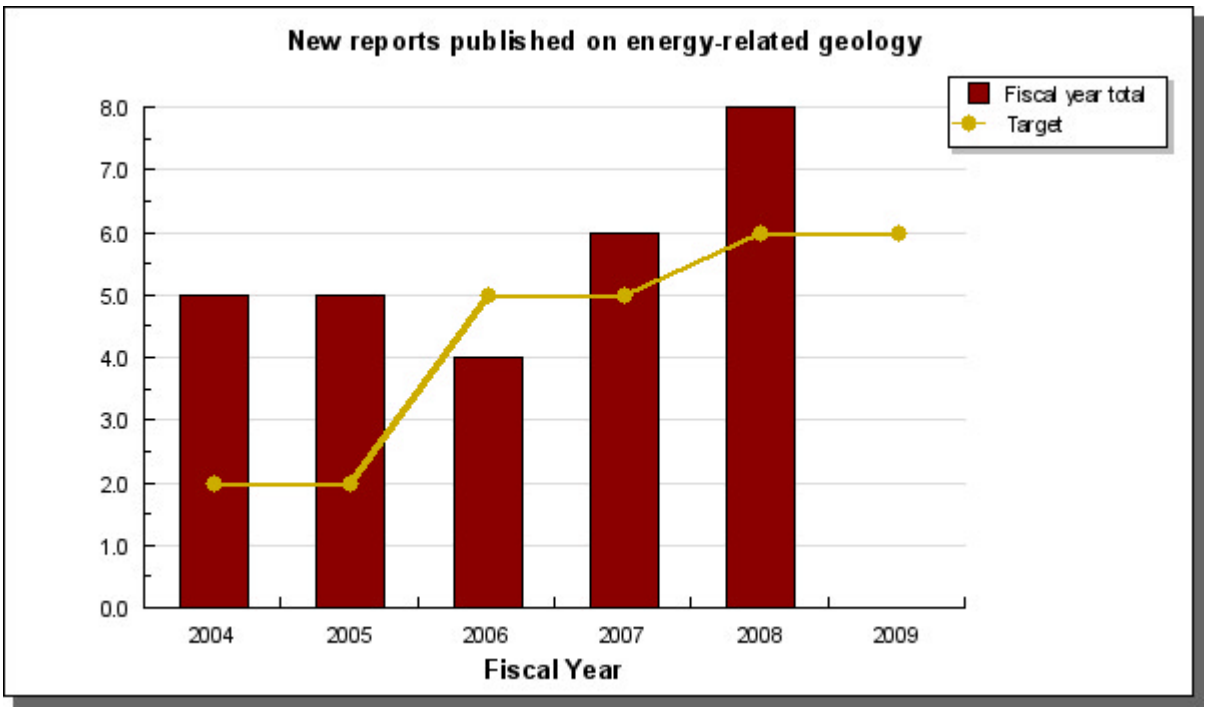
Analysis of results and challenges: Products of the Division of Geological & Geophysical Survey's (DGGS) field-geologic and geophysical studies are technical reports, geologic & geophysical maps, and digital datasets. Each year, the division collects field data for several areas, totaling several hundred square miles in area, analyzes those data, and publishes the products. Detailed published geologic and geophysical maps at scales needed for resource exploration, land-use management, and geologic-hazards assessment are scattered geographically and currently available for less than 10 percent of the state, but DGGS's field programs are gradually increasing that figure. DGGS prioritizes the selection of new mapping areas in consultation with other state agencies, appropriate state boards and commissions, industry resource-interest groups, and other stakeholders. Information about types of data collected, amount of area covered, and types of products DGGS generates is available in the Performance Measures details.

Although DGGS has made all of its geologic and geophysical reports and maps available online since FY 2000, some users still prefer to receive these products in hard-copy formats. Rather than printing reports and maps in large numbers for distribution as was the practice in years past, hard copies are now printed on demand, with only a few copies kept on the shelves to fill orders or over-the-counter sales. Distribution of hard-copy publications decreased dramatically after online distribution was initiated in 2000, but appears to have leveled off and is rising again. As in our online digital data distribution, the increase appears to largely reflect renewed interest in energy and mineral resources, volcano hazards, as well as a major conference and field trips for which DGGS published popular geologic field guides.

A1: Strategy - Produce timely and reliable new energy-related geologic information in areas of poor geologic understanding and high energy resource potential

Target #1: FY09 Target: Six published reports on energy-related geology that assist the energy industry and state management agencies in developing conventional energy resources on state-interest lands

Status #1: Eight reports generated in FY08, exceeding the target of six



Methodology: Number of new reports published on energy-related geology during the fiscal year

New reports published on energy-related geology

Fiscal Year	Fiscal year total	Target
FY 2009	0	6
FY 2008	8	6
FY 2007	6	5
FY 2006	4	5
FY 2005	5	2
FY 2004	5	2

Analysis of results and challenges: Public dissemination of detailed geologic knowledge is critically important for responsible resource development and management. This information must result from the most modern analyses and incorporate all available data in order to identify frontier areas of energy exploration on state lands. A critical component of this effort is in the form of published reports on a wide range of geologic disciplines.

Target #2: FY09 Target: Zero reports on unconventional energy resource potential of state-interest lands (no currently funded program)
Status #2: Zero reports published in FY08. Federally funded project completed in FY07.

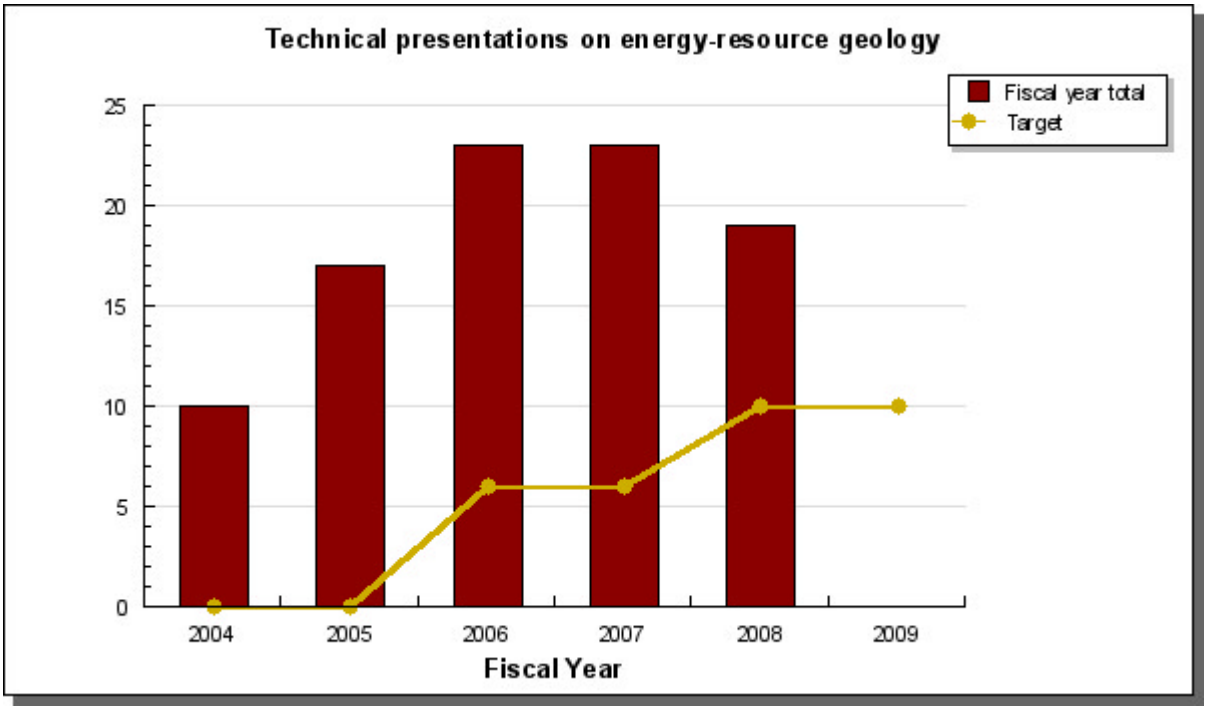
Reports published on unconventional energy resources

Fiscal Year	Fiscal year total	Target
FY 2009	0	0
FY 2008	0	0
FY 2007	1	1
FY 2006	0	1
FY 2005	1	2
FY 2004	2	2

Methodology: Number of reports on unconventional energy resources published during the fiscal year

Analysis of results and challenges: An emerging frontier of resource development is unconventional energy. Examples of this potential include low permeability reservoirs, gas hydrates, coal, coal bed methane, and geothermal. This target is not only important for developing commercial energy sources, but also for the energy challenges faced in rural Alaska. The Division of Geological & Geophysical Surveys has had a federally funded project to assess the potential for unconventional gas resources in selected areas of the state, however the funding has ended and the project has been completed. Publication of the final report is indicated as the result for FY2007.

Target #3: FY09 Target: Ten presentations on energy-resource geology to industry, public, and government sectors.
Status #3: Nineteen presentations made in FY08, significantly exceeding target of ten



Methodology: Number of technical presentations made to industry, public, and government sectors during the fiscal year on energy-resource geology

Technical presentations on energy-resource geology

Fiscal Year	Fiscal year total	Target
FY 2009	0	10
FY 2008	19	10
FY 2007	23	6
FY 2006	23	6
FY 2005	17	0
FY 2004	10	0

Analysis of results and challenges: An important venue for releasing timely information for resource development and regulations is through public presentation at both local and national technical conferences. This avenue is often the most cost-effective and timely method of disseminating new findings to the broadest audience of end-users. Significant effort is placed on this method of knowledge transfer and will be followed up by publication of data and interpretations. Because new presentation opportunities arise during each fiscal year, DGGS generally far exceeds its target for this important outreach method. Some of our energy-resource presentation materials are accessible through the link below.

Target #4: FY09 Target: Zero new square miles of published, energy-related geologic mapping
Status #4: Zero square miles published in FY08 toward target of 1,050. Several draft maps were completed that will be published in FY09.

Square miles of published new energy-related geologic mapping

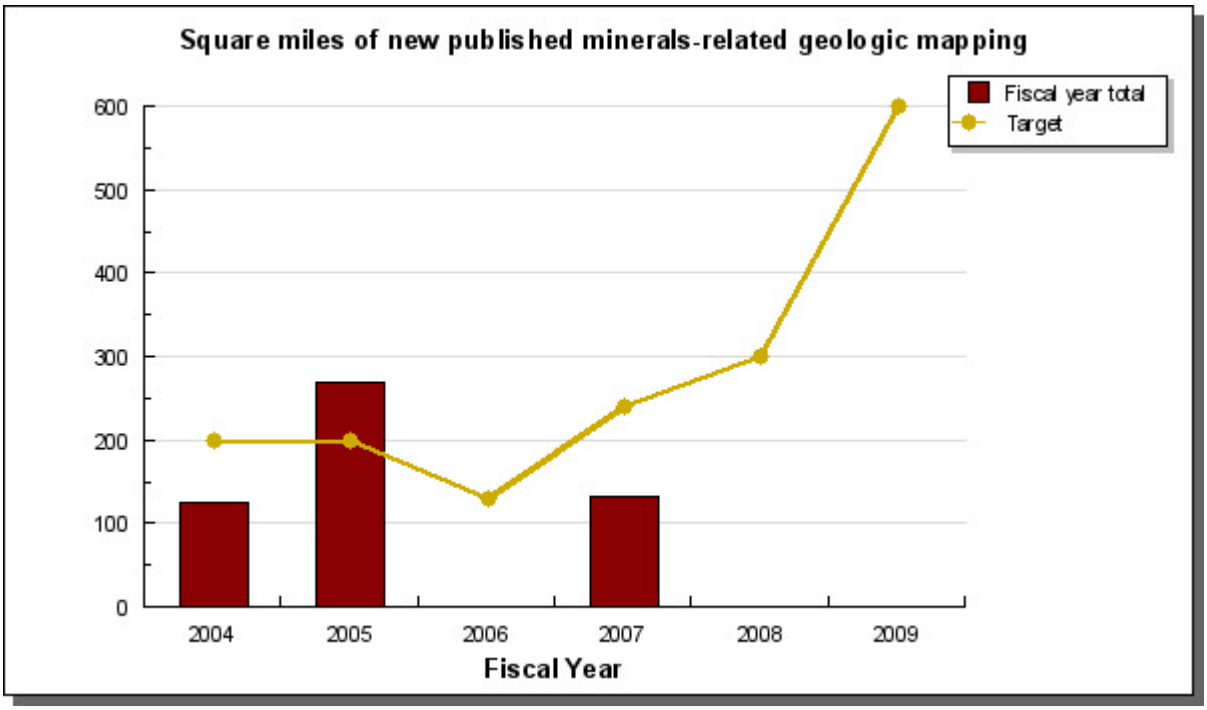
Fiscal Year	Fiscal year total	Target
FY 2009	0	0
FY 2008	0	1050
FY 2007	525	525
FY 2006	0	240
FY 2005	0	200

Methodology: Number of square miles of new, peer-reviewed, energy-related bedrock geologic mapping published during the fiscal year

Analysis of results and challenges: The publication of mapped geologic data in areas of high energy resource potential is critical for attracting new industry players and providing detailed information for government, academia and exploration companies. The Division did not meet its published target in FY08. 525 square miles of new geologic mapping was completed in 2005 and published in FY07. Significant personnel changes in the energy section, as well as the backlog created for publication staff were the major challenges faced during this period. Re-structuring of the energy program and a focused effort on the publication backlog were accomplished in FY07 and FY08. Several maps have been revised and re-drafted and we expect to catch up on the publication backlog in FY09.

A2: Strategy - Produce timely and reliable new minerals-related geological and geophysical information in areas of limited information and high minerals resource potential

Target #1: FY09 Target: 600 square miles of published, minerals-related bedrock geologic mapping
Status #1: Zero square miles published in FY08 toward target of 300. Draft maps were completed that will be published in FY09



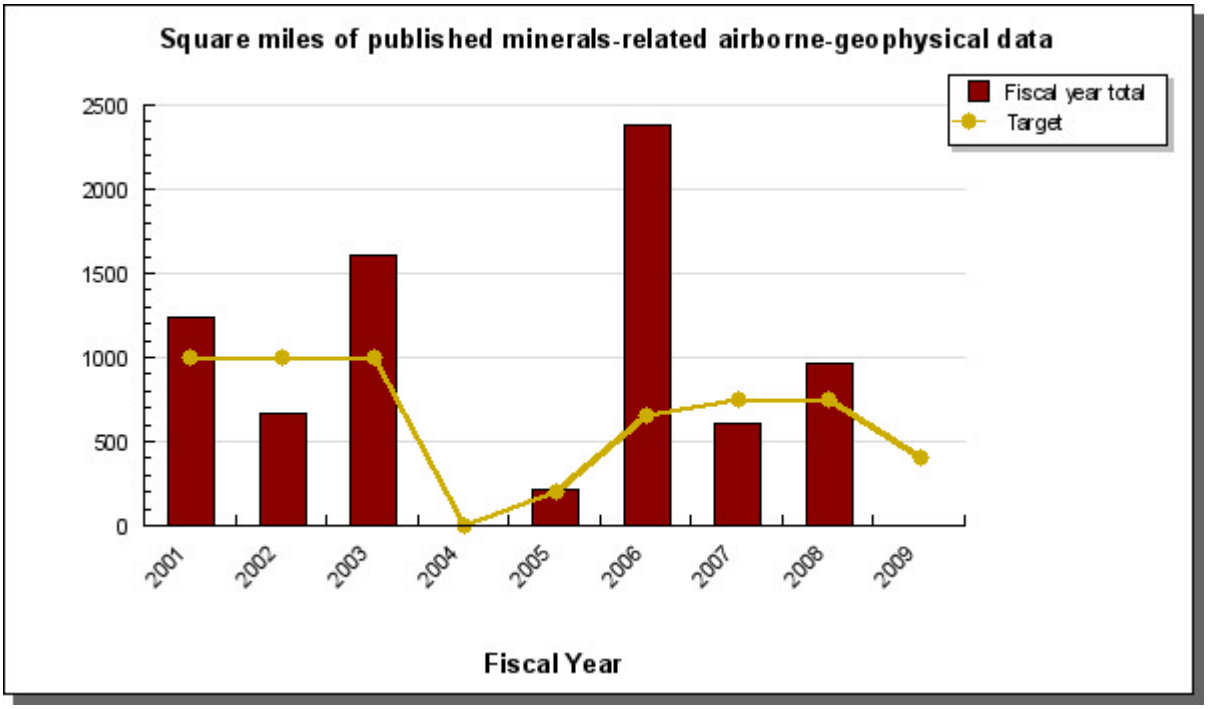
Methodology: Number of square miles of new, peer-reviewed, minerals-related bedrock geologic maps published during the fiscal year

Square miles of new published minerals-related geologic mapping

Fiscal Year	Fiscal year total	Target
FY 2009	0	600
FY 2008	0	300
FY 2007	131	240
FY 2006	0	130
FY 2005	268	200
FY 2004	124	200

Analysis of results and challenges: The publication of geologic maps and analytical data in areas of high mineral-resource potential is critical for attracting new industry investment and providing detailed information for government, academia and exploration companies. The Division of Geological & Geophysical Surveys (DGGS) minerals section geologists have developed a methodology for increasing bedrock geological mapping by use of pre-flown airborne geophysical data to help identify poorly exposed bedrock units. DGGS has usually exceeded its mapping targets, which vary year to year based on available funding and logistics costs in the area mapped. The time required to publish a map is usually about 18 months after field work is completed. The FY08 target was not reached because insufficient personnel were available to complete the planned FY08 map. DGGS recently filled a minerals geologist position, and this should allow DGGS to complete the FY08 map in FY09.

Target #2: FY09 Target: 400 square miles of published airborne geophysical maps of minerals-interest lands
Status #2: 965 square miles published in FY08, exceeding target of 750.



Methodology: Number of square miles of completed new airborne geophysical maps of minerals-interest lands published during the fiscal year

Square miles of published minerals-related airborne-geophysical data

Fiscal Year	Fiscal year total	Target
FY 2009	0	400
FY 2008	965	750
FY 2007	613	750
FY 2006	2382	650
FY 2005	210	200
FY 2004	0	0
FY 2003	1612	1000
FY 2002	671	1000
FY 2001	1240	1000

Analysis of results and challenges: Much of Alaska's minerals potential lands have poorly exposed geology due to tundra and tree cover. Advancement in geophysical data acquisition has shown that much of this poorly exposed bedrock can be identified using aerial geophysical surveys and, in combination with ground-based geologic mapping, can provide reliable information for mineral resource assessment. Less than 20% of potential mineral bearing lands have been surveyed, and the Division of Geological & Geophysical Surveys (DGGS) is committed to prioritizing and finishing the acquisition of these important data. Funding for this work has historically been sporadic and partially dictates the amount of yearly coverage possible. Available equipment and personnel constraints also play major roles in our ability to gather data. The total geophysical survey area flown and released in FY08 for mineral-interest lands exceeded the FY08 target of 750 square miles because it included 250 additional square miles of survey flown over minerals-interest lands in the western Fortymile area under Bureau of Land Management support.

Target #3: FY09 Target: 1,022 square miles of published surficial geologic maps that provide information on placer-mineral potential and/or construction-materials resources

Status #3: Zero square miles published in FY08 toward the target of 1,300. These maps are in review and will be published in FY09.

Square miles of new published placer-mineral and construction materials geologic maps

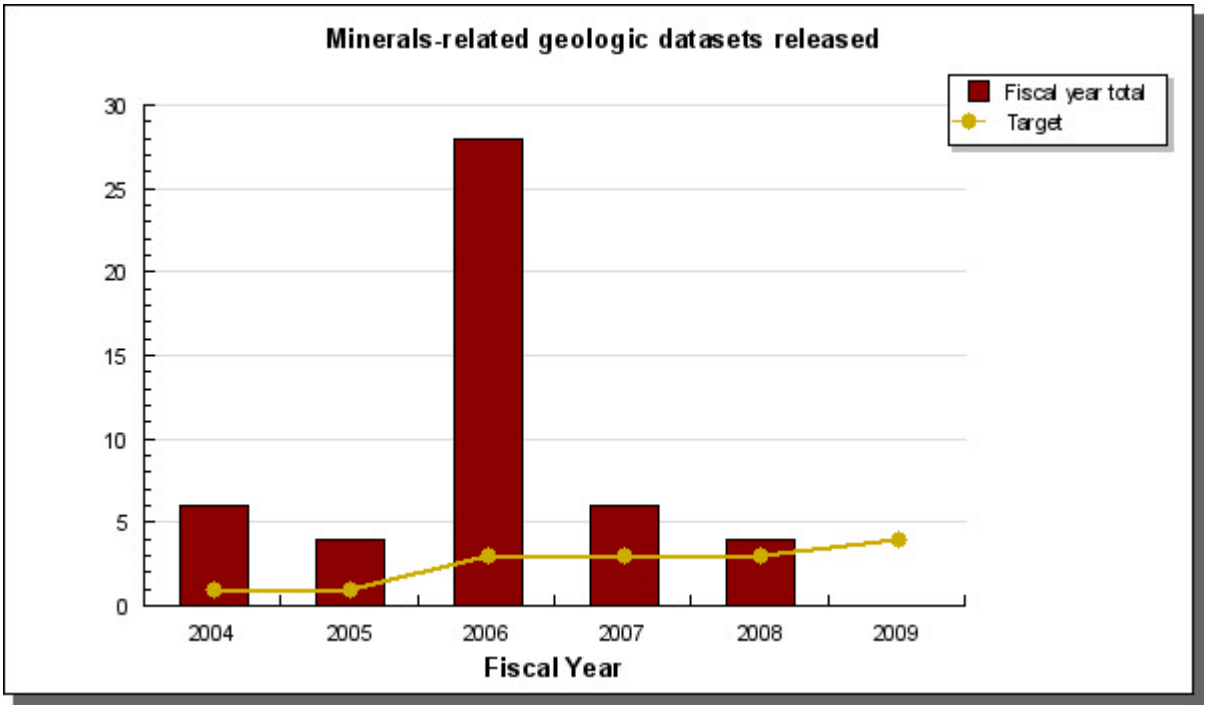
Fiscal Year	Fiscal year total	Target
FY 2009	0	1022
FY 2008	0	1300
FY 2007	0	240
FY 2006	268	130

Methodology: Number of square miles of new, peer-reviewed surficial geologic maps published during the fiscal year that provide information on placer-mineral potential or construction-materials resources

Analysis of results and challenges: The publication of geologic maps in areas of high placer-minerals and construction-materials resource potential is critical for providing detailed information for government, academia and exploration companies. This information is also pertinent for state land disposals and land-use management. Although there has been significant reduction in placer-mineral mining because of environmental concerns and low mineral values, new techniques, environmental remediation standards, and higher commodity prices have renewed interest in the resource. Surficial geologic mapping performed in 2006 was in review and not ready for publication by the end of FY08. These maps will be published in FY2009 along with 1,022 square miles of new mapping completed in 2007 and 2008. The major increase in mapping reflected in the FY2008 target is a result of new Capital Improvement Project (CIP) funding to conduct geologic mapping and hazards evaluations along the proposed natural gas pipeline corridor between Delta Junction and the Canadian border.

Target #4: FY09 Target: Four new legacy or private-sector datasets of minerals-related geologic information made available online

Status #4: Four datasets published in FY08, exceeding the target of three.



Methodology: Number of new legacy or private-sector datasets released during the fiscal year that provide minerals-related geologic information

Minerals-related geologic datasets released

Fiscal Year	Fiscal year total	Target
FY 2009	0	4
FY 2008	4	3
FY 2007	6	3
FY 2006	28	3
FY 2005	4	1
FY 2004	6	1

Analysis of results and challenges: The advent of the digital information age has placed significant demand on information availability and feasibility of warehousing hardcopy documents. As a result, a significant body of data in the public and private sectors is at risk of loss due to budget constraints and physical space requirements. The Division of Geological & Geophysical Surveys (DGGS) has been employing considerable effort to recover and transfer these documents to digital format and provide them electronically in order to capture the wealth of information available, and distribute it to a broader user base. In FY08, DGGS added 3 minerals-related datasets from current projects, and 1 dataset from legacy minerals-related datasets to its WebGeochem database.

Target #5: FY09 Target: Two published reports providing statistical information on Alaska's mineral industry
Status #5: Two reports published in FY08, meeting the target

Reports on Alaska mineral-industry statistics

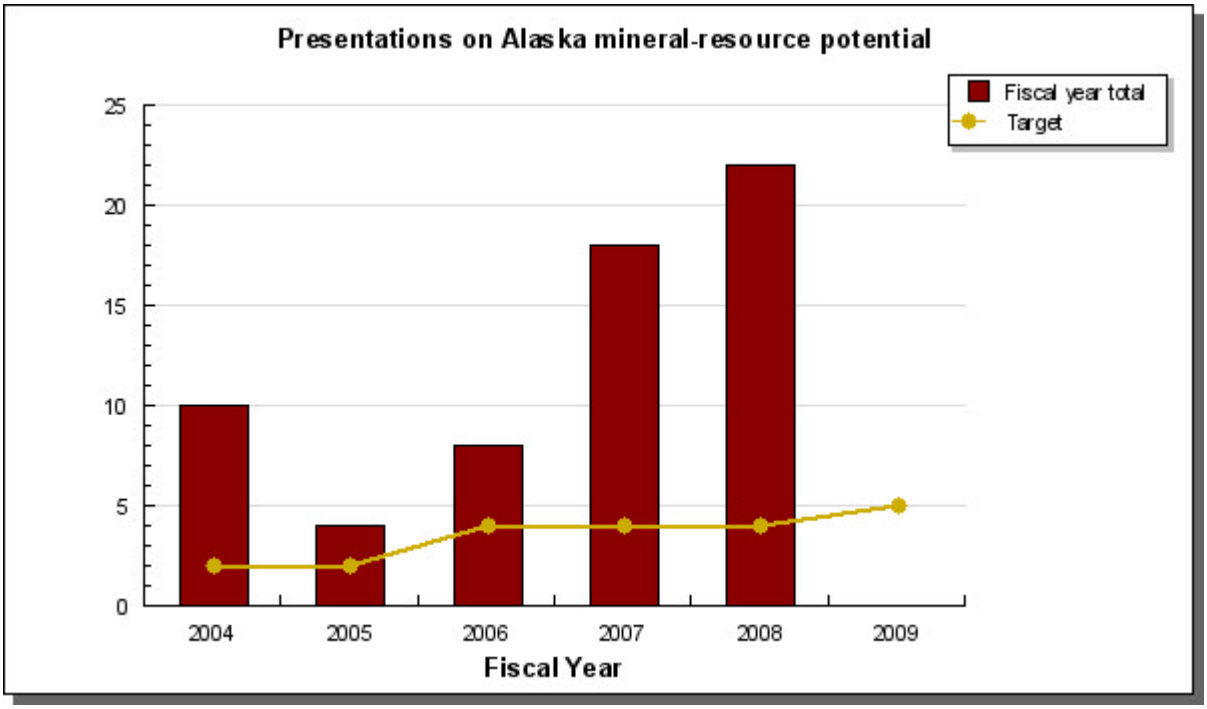
Fiscal Year	Fiscal year total	Target
FY 2009	0	2
FY 2008	2	2
FY 2007	2	2
FY 2006	2	2
FY 2005	2	2
FY 2004	2	2

Methodology: Number of reports published during the fiscal year providing statistical information on Alaskan mineral industry

Analysis of results and challenges: An important source of minerals information can be obtained through the statistical study of industry trends and information. The Division of Geological & Geophysical Surveys, in collaboration with the Division of Mining, Land & Water and Department of Commerce, Community, and Economic Development, compiles, publishes, and distributes this information for both governmental and industry use. These documents are widely used and considered a critical source of information for planning.

Target #6: FY09 Target: Five presentations to industry, public, and government sectors on mineral-resource potential and the status of Alaska's mineral industry

Status #6: 22 presentations in FY08, far exceeding the target of four.



Methodology: Number of technical presentations made to industry, public, and government sectors during the fiscal year on mineral-resource potential and the status of the Alaskan mineral industry

Presentations on Alaska mineral-resource potential

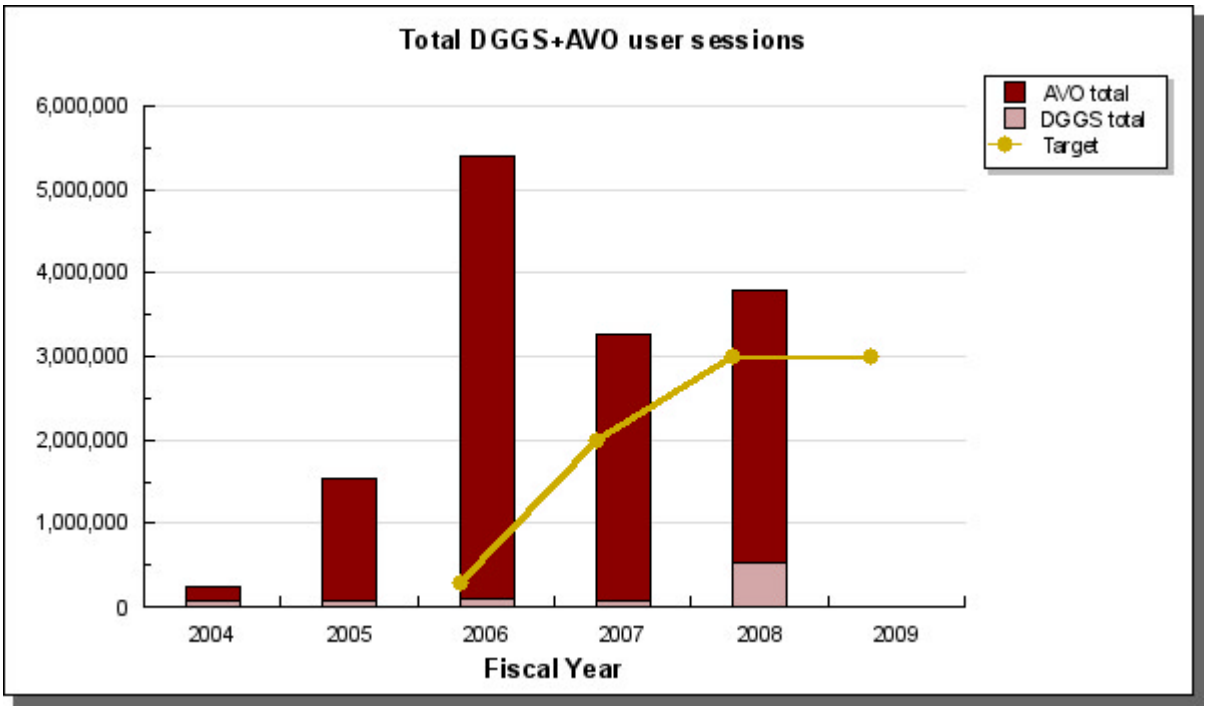
Fiscal Year	Fiscal year total	Target
FY 2009	0	5
FY 2008	22	4
FY 2007	18	4
FY 2006	8	4
FY 2005	4	2
FY 2004	10	2

Analysis of results and challenges: An important venue for releasing timely information to encourage mineral-resource development and management is through public presentations at local, national, and international technical conferences. This avenue is a cost-effective and timely method of disseminating new findings to the broadest audience of end-users. The Division of Geological & Geophysical Surveys places significant effort on this method of knowledge transfer and follows up these presentations by publishing the data and interpretations.

B: Result - Timely online delivery of geological and geophysical information to support resource development, attract new industry and provide pre-disaster hazard mitigation for continued economic growth

Target #1: FY08 Target: 3 million visits (user sessions) to retrieve information and data from the Division of Geological and Geophysical Surveys (DGGS) and Alaska Volcano Observatory (AVO) Web sites

Status #1: 3.8 million visits to the DGGS and AVO websites in FY08, exceeding the 3 million visit target



Methodology: Number of visits (user sessions) to view or download information from the DGGS and AVO websites.

Total DGGS+AVO user sessions

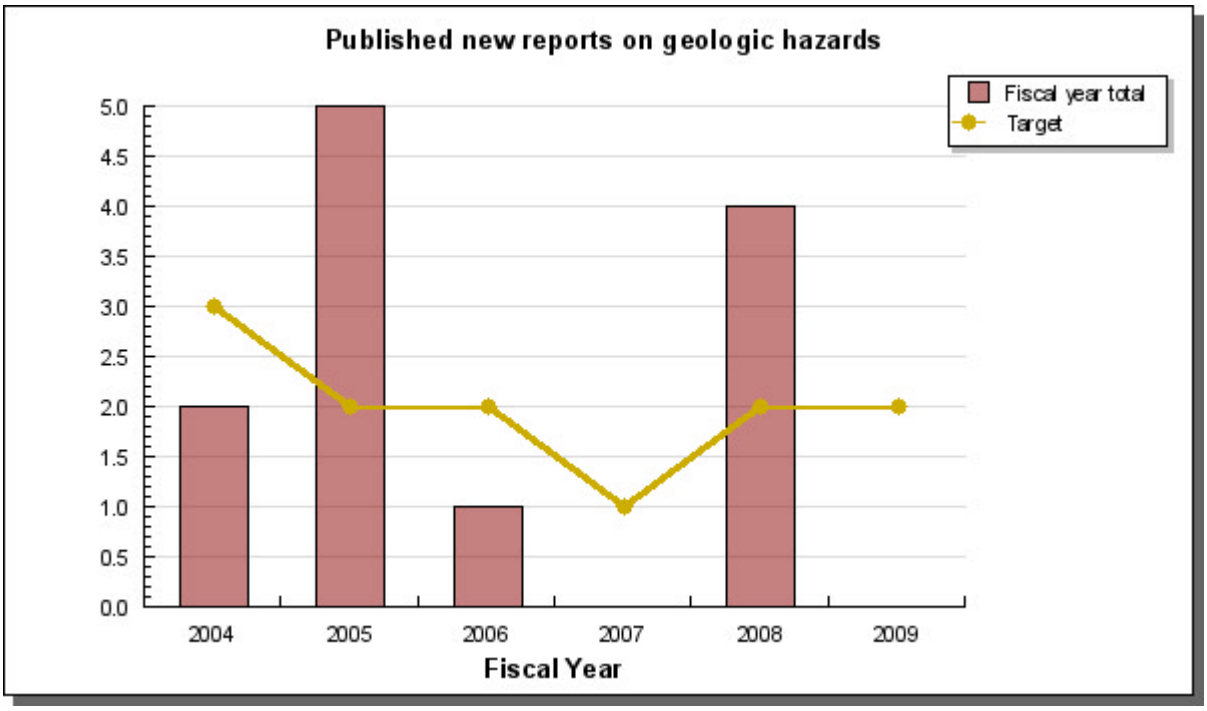
Fiscal Year	DGGS total	AVO total	YTD Total	Target
FY 2009	0	0	0	3,000,000
FY 2008	523005	3276589	3799594	3,000,000
FY 2007	74002	3200000	3274002	2,000,000
FY 2006	96497	5298140	5394637	280,000
FY 2005	80000	1445372	1525372	
FY 2004	70000	178,806	248,806	

Analysis of results and challenges: The Division of Geological and Geophysical Surveys (DGGS) has focused a significant effort on developing and maintaining websites for delivery of data and information. In addition to running its own agency website, DGGS develops and maintains the website for the Alaska Volcano Observatory (AVO), which is a cooperative program involving DGGS, the US Geological Survey, and University of Alaska Fairbanks. The division has seen a dramatic increase in geologic data inquiries via the internet since posting the data on its websites a number of years ago. Our FY06 total website visits (DGGS+AVO) far exceeded the target as a result of the eruption of Augustine Volcano and the subsequent public inquiries to the AVO web site (see table). It was the first volcanic eruption in history that the public could monitor in real time via the Internet. Total visits were down from that level in FY 2007 but have increased to 3.8 million visits in FY2008.

B1: Strategy - Produce reliable new information on geologic hazards in areas at risk of economic losses and casualties from disasters

Target #1: FY09 Target: Two peer-reviewed reports or maps providing improved assessment of geologic hazards that pose significant risks to public safety

Status #1: Four volcano hazard reports published in FY08, exceeding target of two. Two additional reports on hazards in the proposed gas pipeline corridor along the Alaska Highway are in review and will be published in FY09.



Methodology: Number of peer-reviewed reports or maps published during the fiscal year providing improved assessment of geologic hazards that pose significant risks to public safety

Published new reports on geologic hazards

Fiscal Year	Fiscal year total	Target
FY 2009	0	2
FY 2008	4	2
FY 2007	0	1
FY 2006	1	2
FY 2005	5	2
FY 2004	2	3

Analysis of results and challenges: Public safety and preventing economic disasters caused by natural phenomena are distinctly tied to our understanding the risks associated with the complex geology in Alaska. Mitigation of these risks can only come about through detailed mapping and understanding of the natural hazards and processes, and timely distribution of that information to the public and government planners. Increasing population and development in Alaska create significant demands for acquiring geologic data and distributing it in a timely fashion. Four reports on volcanic hazards were published in FY08. Field work was performed in FY07 and FY08 for a major geologic-hazards study of part of the proposed natural gas pipeline corridor between Delta Junction and the Canadian border. Two hazard reports on this work are in review and will be published in FY09.

C: Result - Timely responses to all public & agency requests for information and assistance on energy resources, mineral resources, geologic hazards, and engineering geology

Target #1: FY08 Target: 100 percent timely responses to requests for geologic information needed by exploration companies, resource planners, emergency managers, scientific organizations, land managers, and developers

Status #1: 100% timely responses to 997 requests for geologic information in FY2008, achieving the target of 100%

Percent timely responses to requests for geologic information

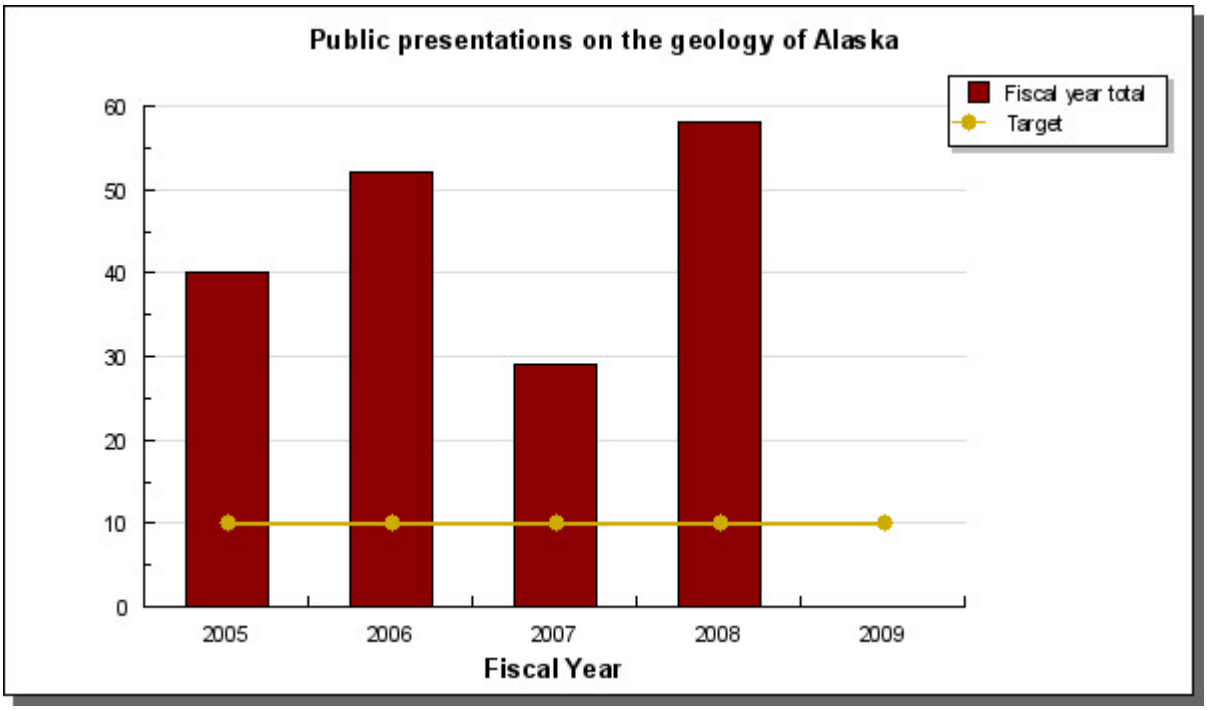
Fiscal Year	FY total responses	Result	Target
FY 2009			100%
FY 2008	997	100%	100%
FY 2007	1,330	100%	100%
FY 2006	2,215	100%	100%
FY 2005	702	100%	100%

Methodology: Percent of timely, acceptable responses to requests for geologic information during the fiscal year, relative to the total number of requests

Analysis of results and challenges: Current, timely geologic information is critical for public safety, resource exploration, emergency management, scientific organizations, land managers, and developers. Regardless of the amount of information gathered, the distribution of that knowledge is key in providing the desired outcome. The significant increase in FY2006 was primarily the result of requests for information on the eruption of Augustine Volcano in early 2006, but also includes increased requests for information on minerals and energy resources as a result of increased exploration for those commodities. The total annual number of requests for information has decreased somewhat since 2006, but many of the requests require more extensive research and written response than in the past, particularly those from other DNR divisions. The division is committed to continuously providing a 100% timely response to all requests for information.

C1: Strategy - Provide improved public outreach and education regarding the geology of Alaska

Target #1: FY09 Target: Ten public presentations on the geology of Alaska, including information displays at conferences, speaking at or teaching classes, and technical talks at public meetings
Status #1: 58 public presentations given in FY08, significantly exceeding the target of 10.



Methodology: Number of events during the fiscal year that involve delivering presentations about the geology of Alaska, speaking at or teaching classes, or preparing and manning public displays

Public presentations on the geology of Alaska

Fiscal Year	Fiscal year total	Target
FY 2009	0	10
FY 2008	58	10
FY 2007	29	10
FY 2006	52	10
FY 2005	40	10

Analysis of results and challenges: Public awareness and knowledge of the division's activity and database is paramount to success of the organization's mission. Although the web site is an important tool to that end, the power of physical presence at public forums cannot be underestimated. The Division of Geological & Geophysical Surveys employs significant effort in presenting geologic knowledge in a wide range of public venues including schools, trade shows and community meetings. The number of presentations made, significantly in excess of the target, reflects the commitment to that outreach.

D: Result - Improved public access to nonproprietary rock samples and to the corresponding processed samples in support of private-sector resource exploration and geological education

Target #1: FY08 Target: 100 percent satisfied users of the Geologic Materials Center, based on written evaluations

Status #1: 100 percent satisfied users in FY08, based on 13 written evaluations. There were 497 visits to the GMC during the fiscal year.

Percent satisfied users of the Geologic Materials Center

Fiscal Year	Client visits	Evaluations	% Satisfied	Target
FY 2009				100%
FY 2008	497	13	100%	100%
FY 2007	407	11	100%	100%
FY 2006	470	6	100%	100%
FY 2005	492	12	100%	100%

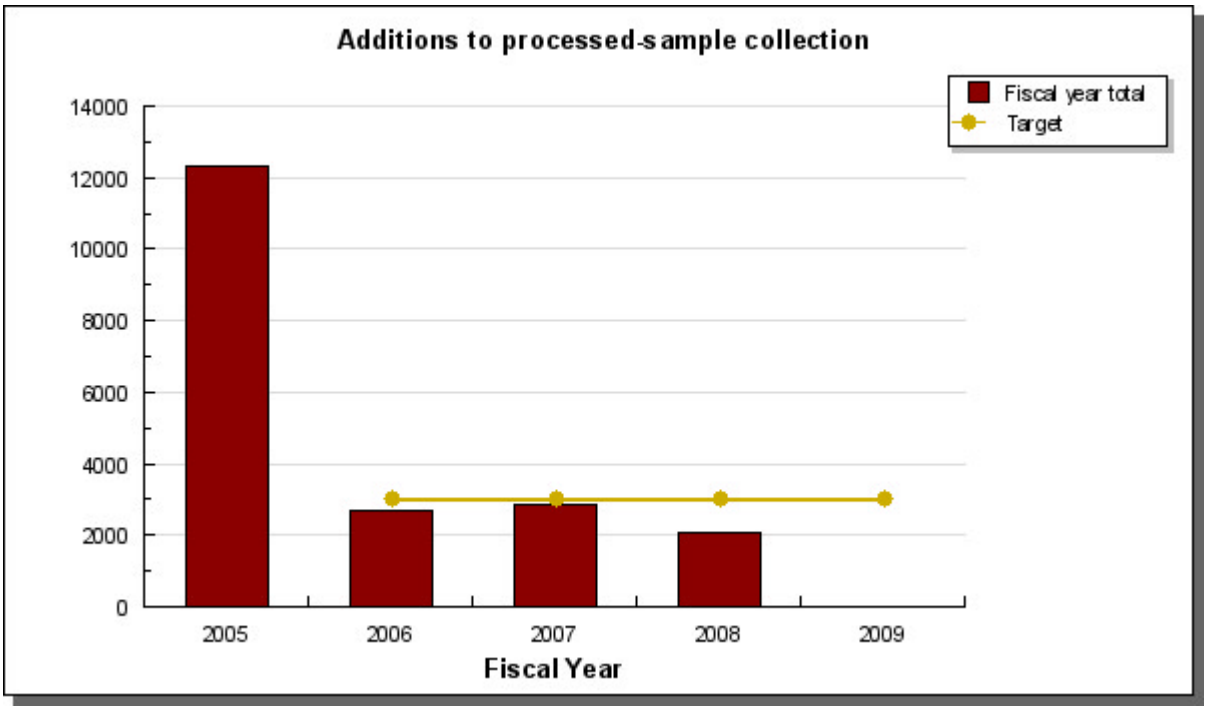
Methodology: Percentage of satisfied users of the Geologic Materials Center sample archives based on written evaluations

Analysis of results and challenges: A significant amount of effort and capital has been spent over the past 60 years to obtain rock and mineral samples throughout Alaska. Some of these samples are irreplaceable, or currently very difficult and expensive to acquire. The state's Geologic Materials Center (GMC), operated by the Division of Geological & Geophysical Surveys (DGGS), archives geologic samples and provides a wide range of users (industry, government, academia, and public) access for identifying new resource prospects and increasing our geologic knowledge of the state. This is all done under a very limited budget in a sorely inadequate and outdated facility. It is very important that this access is user-friendly and allows for new technological analyses to be performed in a timely manner. Although satisfaction is currently 100%, a noted challenge has been to document user feedback through written evaluations. There were 497 visitations to the facility in FY08, up from 407 in FY07. The Division will initiate methods of acquiring more user evaluations and making improvements where warranted.

D1: Strategy - Provide increased availability of processed samples at the Geologic Materials Center (GMC)

Target #1: FY09 Target: 3,000 new processed geological samples (microfossil/petrographic slides) received at the Geologic Materials Center

Status #1: 2,074 new processed samples received in FY08 toward the target of 3,000



Methodology: Number of new items added to GMC processed-sample collection (microfossil/petrographic slides, data reports)

Additions to processed-sample collection

Fiscal Year	Fiscal year total	Target
FY 2009	0	3000
FY 2008	2074	3000
FY 2007	2882	3000
FY 2006	2666	3000
FY 2005	12314	

Analysis of results and challenges: Constant access to new geologic samples is very important to increasing our knowledge of Alaska's complex geology. Specialized subsamples of the Geologic Materials Center (GMC) collection provide information to geologists that can mean significant economic impact to the state. These samples are largely provided by users of the facility who subsample the collection and prepare specialized processed samples, such as thin sections. The FY08 total of 2,072 processed samples added to the collection was down from FY07 and missed the target of 3,000. The decrease appears to be partly a result of a shift in emphasis by private-sector exploration companies in the types of analyses performed on the rock samples. However, because of increased exploration interest, we expect the number of analyses to be closer to the target in future years.

Key Component Challenges

Changes in local energy supply and consumption

- Sustained high energy prices have had a significant impact on the economies of rural Alaska and threaten the viability of rural infrastructure.
- Many remote areas of the state lack sufficient geologic information on potential alternate forms of energy such as shallow natural gas, coal, geothermal, and conventional gas.

- Misinformation about viable alternate energy sources is rampant and many expensive mistakes can be avoided by getting the information in the hands of the local governments and decision makers.
- The Legislature will act in the coming year to help citizens weather the difficult financial burdens associated with fuel costs in rural Alaska. Unfortunately, neither the state, nor the public, is prepared for the demand for data, expertise, and reputable contractors that will be needed to perform the necessary analyses and research.
- Dramatically changing the state's energy supply will be a non-trivial exercise. Providing money to make changes is a first important step, however there must be oversight and monitoring of projects to avoid the substantial mistakes of the past. This is a problem that will not be solved by pouring state funding into a trough and yelling "come and get it".
- The Alaska Energy Authority has been tasked with distributing state funds, by the way of grants, to begin assessing and developing sustainable forms of energy in all corners of the state. DGGS will be intimately involved in reviewing the proposals for resource existence, methodology, and data review. DNR will be tasked with the substantial job of regulating the 100's of projects that have the real potential to significantly impact the states natural resources.
- DGGS will be challenged to provide pertinent and timely data on numerous fronts, and is requesting additional capital project funds to begin a long-term program that addresses the occurrence of locally available energy sources and makes that data available to those that are in need of it.

Response to data needs for adaptation to a changing arctic climate

- Alaska will, over the coming years, be a national focal point for indications and impacts of climate change. Our ability to provide reliable, unbiased data for the development and evaluation of emerging policy and statute changes will be very important for achieving reasonable, long-range planning and mitigation. We will continue to collect geologic and hazards data needed to help mitigate and adapt to the changing environment and make it available to the public.
- There are many areas where geologic information will be needed. Most important, these data will be required in areas of coastal development and critical infrastructure where ground settlement from thawing permafrost, increased erosion and landslide hazards, and changes in hydrologic systems (both surface and subsurface aquifers) will be prevalent.
- Historically the state has relied on site-specific hazards analyses related to ongoing development or permit approval. The recognition of significant change across the arctic will require that regional baseline data be gathered and made available to communities and local planners so that mitigation and new development can progress with physical and environmental change in mind.
- Continued population growth and development in Alaska will continue to encroach on areas with heightened geohazard risk.
- DGGS will be tasked with acquiring geologic data, producing maps, and identifying risks (information that can be used in both short-term and long-term planning). In some cases it will be critical to have this data available in crisis situations.
- DGGS will work with many other agencies (with a wide range of mandates) in a coordinated effort so that the most important needs are addressed, and redundancy is minimized.
- The key challenge will be in the prioritization of the areas, as there much more need for data than personnel and funding to acquire it.

Updating and Improving the Alaska Geologic Materials Center

- A repository of rock core, samples, and data is critical for any state (or country) that relies on resource development as a key component of its economy
- The Geologic Materials Center (GMC), located in Eagle River, is Alaska's rock data repository and is the "first stop" for any industry or academic researcher who is attempting to identify and understand the complex geology of the numerous resource-rich areas throughout Alaska.
- Providing efficient and comprehensive access to these data is critically important for viable exploration programs, for both seasoned Alaska explorers and new companies that are trying to identify potential exploration areas
- Although the current condition of the GMC is being maintained, the facility is more than 150 percent over its designed sample-storage capacity, and is very poorly designed to handle the regular and frequent requests for reasonable access to the material.
- The GMC currently utilizes 57 portable containers as temporary storage facilities for recent sample acquisitions. These shipping containers are unlighted, unheated and house thousands of feet of core, some of which will disintegrate with repeated freeze-thaw cycles. It is important to note that this collection represents hundreds of millions of dollars of acquisition and preservation costs and is in significant risk of damage or loss.

- The core and sample observation areas are essentially unusable for confidential work and examination of more than a few feet of core length. An exploration company's ability to keep their activities confidential is critical to exploration success in a fiercely competitive environment. Often the core must be taken off-site for substantial projects, creating a significant security threat to the unique core, and an expensive alternative for the exploration company. All of these factors could result in a reluctance by users to make use of the facility because they must go through the onerous effort of transporting and unnecessarily handling the material at risk.
- A facility concept study, funded through a special federal appropriation, was finished in July of 2006. The study identified the most feasible options for design and provided cost estimates for various configurations. It is the basis for our FY10 CIP request to support the next phase, which is architectural and engineering design of the facility.
- A significant challenge for DGGS over the near term will be to convince the public, lawmakers, and government officials of the importance of upgrading this facility and providing the funding necessary to keep this critical data source safe and accessible. We have now initiated a multi agency task force that will finalize the site selection and identify public funding sources and key legislators to support the project.

Sustained High-level Commodity Prices

- Although this is very good news for State revenue as a whole, increased price structure in most natural resource commodities presents a challenge for DGGS to meet demands for geologic information.
- Loss of personnel to industry and retirement remained a key challenge in FY09, and will likely continue into the foreseeable future
- Dramatic increases in minerals and oil and gas exploration efforts by independent industry puts a noticeable strain on all facilities and programs. Our effort to provide critical geologic data to these entities will be challenged as more and more end-users of our products demand quicker and more comprehensive response. The main challenges will arise from a static state budget and our ability to plan for the rapidly changing needs of the resource development community, and to gather the required field information in the face of rising operating costs.
- Spikes in the exploration cycle also create a situation where high-paying jobs become abundant, and opportunities for experienced geoscientists become commonplace. A significant challenge for DGGS will be our ability to attract and retain key personnel in this very competitive environment.

Infrastructure Projects

- Development of Alaska's vast resource base requires reasonable access to world markets. Providing geologic data for infrastructure maintenance and development will remain a key challenge for DGGS.
- The Alaska Gasline Inducement Act (AGIA) pipeline will require vast amounts of construction materials information and geologic hazards data to allow timely and safe design and development. DGGS is currently acquiring those data, but will need to accelerate the current pace to supply the needed maps and information.
- Continued arctic warming will undoubtedly increase maintenance requirements on much of Alaska's current roads and transportation corridors. Identifying geologic hazards and areas prone to failure will be needed to mitigate this change. Increased materials requirements will likewise strain Department of Transportation and Public Facilities's (DOT/PF)ability to address this issue. DGGS will work with other state agencies to provide modern analytical techniques for this work.

Significant Changes in Results to be Delivered in FY2010

- Engineering-geologic and hazards maps for at least one coastal community facing possible relocation
- Facilitation of pipeline design and shortening of construction timeline due to pre-development geologic mapping in final leg of transportation corridor
- Finish final phase of design on Geologic Materials Center and begin site clearance in preparation of protecting the state's natural resource archive

Major Component Accomplishments in 2008

Energy Resources

- Conducted geologic mapping, structural, and stratigraphic studies on the North Slope in collaboration with the Division of Oil & Gas and U.S. Geological Survey, collecting geologic data for evaluating the hydrocarbon potential of the Brooks Range foothills.

- Prepared a field tour for oil & gas industry geologists at Happy Valley camp to present new technical results bearing on the petroleum geology of northern Alaska. The tour included a two-day geologic tour of field localities between the Ivishak and Sagavanirktok rivers illustrating relationships that are key to oil and gas exploration.
- Published a multi-chapter volume addressing key geologic relationships in the central Sagavanirktok Quadrangle relevant to oil and gas exploration.
- Conducted structural and stratigraphic studies in Cook Inlet in collaboration with the Division of Oil & Gas, collecting data relevant to assessing the hydrocarbon potential of Cook Inlet basin.
- Conducted a one-day tour for industry and government geologists examining potential oil and gas reservoir deposit types along beach bluff exposures on the Kenai Peninsula.
- Prepared a multi-chapter volume addressing the geology of potential reservoir sands in Cook Inlet.
- Conducted a two-day technical review meeting in Anchorage for government and industry representatives and members of the public to present new data relevant to oil and gas exploration in the North Slope foothills, Bristol Bay and Alaska Peninsula region, and upper Cook Inlet.
- Participated in a one-day forum in Anchorage addressing the potential for gas production from low permeability reservoirs in Alaska.
- Prepared a final report summarizing a three-year field program as part of U.S. Department of Energy and state-funded geologic evaluation of the petroleum potential in the Bristol Bay and Alaska Peninsula region.
- Presented new data relevant to oil and gas exploration in the North Slope foothills and upper Cook Inlet to government and industry representatives at the annual meeting of the American Association of Petroleum Geologists.

Mineral Resources

- Published *Alaska's Mineral Industry 2006* (Special Report 61), an authoritative annual report of statewide mineral exploration, development, and production, in collaboration with the Alaska Department of Commerce, Community and Economic Development.
- Completed draft bedrock geologic map of 189 square miles of the Northeast Fairbanks airborne-geophysical survey tract, to be published in FY2009.
- Completed draft bedrock geologic map of 453 square miles of the proposed Gas Pipeline Corridor airborne-geophysical survey tract between Delta Junction and Dot Lake, interior Alaska.
- Published geochemical data reports for the Richardson District (interior Alaska), Council area (northwest Alaska), Alaska Highway Corridor, and Northeast Fairbanks area.
- Released airborne geophysical surveys of 250 square miles of mineral-interest lands in the Western Fortymile area in eastern Interior Alaska.
- Released airborne geophysical surveys of 715 square miles of mineral-interest lands in the Styx River area, southwest Alaska.
- Initiated airborne geophysical surveys of 405 square miles of mineral-interest lands in the Mentasta-Slana area, eastern Alaska Range.

Engineering Geology and Hazards

- Completed geologic mapping and geohazards evaluation investigations of over 700 square miles along the Alaska Highway between Dot Lake and Tetlin Junction, as the second part of a continuing study of a proposed natural gas pipeline corridor. Field work included surficial- and bedrock-geologic mapping, permafrost investigations and evaluation of potentially active faults near and within the corridor. Analyses and report writing are in progress.
- Initiated a 1:63,360-scale surficial-geologic mapping project in the Sagavanirktok Quadrangle in cooperation with the Energy Resources Section. Of a total map area of 1212 square miles, 835 square miles of surficial geology will be mapped at a reconnaissance level and 377 square miles centered on the Dalton Highway will be mapped at a higher level of detail. Preliminary air photo interpretation was conducted in April and May of 2008 and field work was completed in June and July of 2008. Compilation of the map is currently in progress.
- Completed 188 square miles of surficial-geologic mapping in the Northeast Fairbanks airborne-geophysical survey tract in cooperation with the Mineral Resources Section. Map has been reviewed and final publication is anticipated in early 2009.
- In collaboration with the University of Alaska Fairbanks and University of Wisconsin Madison, completed the final phase of NSF-funded work on MapTEACH (Mapping Technology Experiences with Alaska's Cultural Heritage). The 4-year pilot project developed an educational program for middle- and high-school students in Alaska emphasizing hands-on experience with geospatial technology (GPS, GIS, and remote sensing imagery) in conjunction with traditional activities and geoscience. MapTEACH has now been adopted by the University of Alaska Geography program, which has embraced it as its "flagship K-12 outreach program."

- Participated in the Ninth International Conference on Permafrost, held in Fairbanks June 29 – July 3, 2008. As part of the conference, section members co-led a field trip to the Seward Peninsula, presented a local Fairbanks field trip site, and coordinated and edited a multi-author local field trip guidebook.
- Supported the Alaska Coastal Management Program (ACMP) by reviewing Coastal Project Questionnaires and advising project review coordinators on natural hazards issues.
- Supported the Alaska Division of Oil & Gas by writing, revising, and updating natural hazards reports for lease sale documents.
- Provided administrative support for the Alaska Seismic Hazards Safety Commission.

Volcanology

- Assisted (with Alaska Volcano Observatory partner agencies) in monitoring and reporting on the 2007 eruption of Pavlof Volcano, ongoing eruptions of Cleveland and Veniaminof volcanoes, and waning activity at Fourpeaked volcano.
- Published a report and map of field observations relating to the 2005 crater lake acid-drainage event at Chiginagak volcano.
- Conducted annual water quality monitoring at Mother Goose Lake and the King Salmon River by collecting water samples and measuring the pH of acid water draining from Chiginagak volcano's crater lake. Acidification of these drainages has eliminated once-robust salmon runs since 2005.
- Co-led and managed a helicopter- and fixed-wing supported field camp on Augustine Volcano, involving more than 30 scientists and a complex schedule of field studies as follow-up to the 2006 eruption.
- Maintained the Alaska Volcano Observatory (AVO) internal and external World Wide Web sites, including designing and implementing new automated ways to deliver daily and weekly notices of volcanic activity, implementation of internal communication tools, and updating the public site. A new interactive map showing current volcano monitoring data has also been added to the public page.

Geologic Information Management and Delivery

- Produced 60 new reports, including 39 geophysical reports, nine preliminary interpretive reports, seven raw data files, one Guidebook, one Special Report, one information circular, 1 newsletter issue, and 1 annual report.
- Sold 592 reports and distributed 2,035 complimentary copies of reports at conferences, to teachers, and to fill general requests. Public contacts for the year included 134 walk-ins, 8 fax orders, 73 phone calls, 37 e-mail requests, and 28 mail requests.
- Logged more than 523,000 visits on the DGGS Website from users viewing information on Alaska's geology and downloading geologic and geophysical reports and data.
- Launched a new Digital Geologic Data Distribution application, an internal web application that allows DGGS to post geospatial data on the web for direct public access. Sixty-three geologic datasets are now available on the web to download free of charge, and more are being added. Since the application went into production in November 2007, there were 408 dataset downloads from the DGGS website in FY2008.
- Upgraded the DGGS website's online publications pages including helpful breadcrumbs, web page titles, and advanced search improvements to provide users more efficient tools for retrieving geologic and geophysical information.
- Added documents from DGGS's collection of unpublished legacy paper maps to the newly cataloged collection. The original collection comprised more than 5,000 unsorted sheets authored from 1918 to the present. The resulting collection has been pared down to approximately 2,000 sheets, each of which has been bar coded, cataloged, and assigned a specific location in the DGGS legacy data library to facilitate future recovery for reference by DGGS employees and the public.
- Recovered approximately 15 pallets of valuable unarchived rock samples, collected in support of past geologic field observations and interpretations. These samples, collected between about 1950 and 1990, were nearly lost due to deterioration of their labels and poor storage conditions. The rocks were cataloged, relabeled, and re-boxed so that they could be archived for public use at DGGS's Alaska Geologic Materials Center in Eagle River.
- Initiated development of a new Geologic Materials Center inventory database to integrate the GMC inventory data into DGGS's Oracle database and make the inventory publicly available on the web.
- Presented an Introduction to GIS class at the University of Alaska, Department of Engineering as part of DGGS's ongoing efforts in geoscience outreach and education.
- Salvaged legacy GIS data files dating back to 1994 that were corrupted and unusable due to problems with data storage. The recovered data were converted and used to recreate map layers in modern GIS format. Metadata was completed, and this data set will be added to the list of available digital data on the DGGS website.
- The DGGS public reference library expanded as a result of the closing of the U.S. Bureau of Land Management's John Rishel Mineral Information Center in Juneau. Much of the center's material was sent to DGGS to

incorporate into the library. Funding through the Minerals Data & Information Rescue in Alaska (MDIRA) program facilitated the cataloging of much of the DGGS collection by librarians from the UAF Geophysical Institute's Keith Mather Library.

- The Information Technology group made several upgrades to the computer/server network that is used by all of the DGGS staff. Upgrades included new disk storage space for the file server; a new Uninterruptible Power Supply (UPS), adequate for all of the servers and other IT infrastructure; a backup server for weekly backups of every computer in the building; Oracle software upgrade; conversion of the telephone system to Voice over Internet Protocol (VoIP); and installation of a permanent wireless projector in the division conference room.

Geologic Materials Center

- Hosted 497 visitations to the Alaska Geologic Materials Center (GMC) in Eagle River by industry, government, and academic personnel to examine rock samples and processed materials. These visitations helped generate 1,343 processed oil and gas related microscope slides and 12 hard-rock mineral and oil and gas technical data reports.
- Received rock samples for 36 new oil and gas wells, representing 192,986 feet of well samples, from the Alaska Oil and Gas Conservation Commission.
- Received mineral core for 5 mineral core holes of 2 prospects: the nickel-copper-cobalt Funter Bay prospect near Juneau, and the Rua Cove massive sulphide prospect in Prince William Sound.
- Received a total of 15 pallets of surface samples for Alaska from the U. S. Bureau of Land Management and from DGGS geologists.
- Completed a detailed inventory of the Phillips Oil Company well sample rock collection of Alaska at the Alaska GMC that was originally held by American/Canadian Stratigraphic Company in Anchorage.
- Completed a detailed inventory of the Union Oil Company of California well sample rock collection of Alaska at the Alaska GMC that was originally help in their basement of their Anchorage office.
- Completed a detailed inventory of the Alaska Division of Geological and Geophysical Survey surface rock collection at the Alaska GMC that predates the materials received from DGGS during FY08.
- Created a working ONEGMC database combining all processed and unprocessed hard-rock mineral core and oil and gas well samples from 26 different GMC collections into a single, searchable inventory system.
- Assisted DGGS with definition and system analysis for a future planned web-accessible sample-inventory database.

Statutory and Regulatory Authority

AS 41.08

Contact Information

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Geological Development
Component Financial Summary

All dollars shown in thousands

	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	3,581.3	3,884.8	4,143.2
72000 Travel	130.7	170.0	174.5
73000 Services	1,098.4	3,001.7	3,023.7
74000 Commodities	247.7	279.6	283.4
75000 Capital Outlay	1.4	0.0	0.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	**5,059.5**	**7,336.1**	**7,624.8**
Funding Sources:			
1002 Federal Receipts	813.1	2,268.5	2,018.5
1004 General Fund Receipts	3,562.5	3,935.4	4,538.3
1005 General Fund/Program Receipts	8.9	10.0	10.0
1007 Inter-Agency Receipts	91.9	84.9	264.9
1061 Capital Improvement Project Receipts	463.5	334.5	440.3
1108 Statutory Designated Program Receipts	119.6	702.8	352.8
Funding Totals	**5,059.5**	**7,336.1**	**7,624.8**

Estimated Revenue Collections

Description	Master Revenue Account	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		**0.0**	**0.0**	**0.0**
Restricted Revenues				
Federal Receipts	51010	813.1	2,268.5	2,018.5
Interagency Receipts	51015	91.9	84.9	264.9
General Fund Program Receipts	51060	8.9	10.0	10.0
Statutory Designated Program Receipts	51063	119.6	702.8	352.8
Capital Improvement Project Receipts	51200	463.5	334.5	440.3
Restricted Total		**1,497.0**	**3,400.7**	**3,086.5**
Total Estimated Revenues		**1,497.0**	**3,400.7**	**3,086.5**

Summary of Component Budget Changes
From FY2009 Management Plan to FY2010 Governor

All dollars shown in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2009 Management Plan	**3,945.4**	**2,268.5**	**1,122.2**	**7,336.1**
Adjustments which will continue current level of service:				
-Reverse one-time Gasline Corridor Geo Haz Res Eval Multi-yr approp Sec20(c)(2), CH3, FSSLA2005, P107 L3 lapse 06/30/09	-48.8	0.0	0.0	-48.8
-Delete One-time FY2009 Fuel/Utility Cost Increase Funding Distribution from the Office of the Governor	-18.5	0.0	0.0	-18.5
-Maintain Operations of Alaska Volcano Observatory	250.0	-250.0	0.0	0.0
-Continue Mineral Survey Operations	350.0	0.0	-350.0	0.0
-Correct Unrealizable Fund Sources in the Salary Adjustment for the Existing Bargaining Unit Agreements	14.4	-13.9	-0.5	0.0
-FY2010 Wage and Health Insurance Increases for Bargaining Units with Existing Agreements	55.8	13.9	6.3	76.0
Proposed budget increases:				
-Coastal Geology and Hazards work funded by Division of Coastal and Ocean Management	0.0	0.0	180.0	180.0
-Personal Service Support for Ongoing and Proposed CIP Projects	0.0	0.0	100.0	100.0
FY2010 Governor	**4,548.3**	**2,018.5**	**1,058.0**	**7,624.8**

Geological Development
Personal Services Information

Authorized Positions			Personal Services Costs	
	FY2009 Management Plan	FY2010 Governor		
Full-time	39	40	Annual Salaries	2,803,905
Part-time	0	0	COLA	112,464
Nonpermanent	4	4	Premium Pay	0
			Annual Benefits	1,390,078
			Less 3.79% Vacancy Factor	(163,247)
			Lump Sum Premium Pay	0
Totals	**43**	**44**	**Total Personal Services**	**4,143,200**

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Administrative Assistant II	0	1	0	0	1
Administrative Clerk III	0	1	0	0	1
Administrative Officer I	0	1	0	0	1
Analyst/Programmer III	0	1	0	0	1
Analyst/Programmer IV	0	1	0	0	1
Cartographer III	0	1	0	0	1
College Intern I	0	4	0	0	4
Division Director	0	1	0	0	1
Geological Scientist I	0	2	0	0	2
Geologist II	0	1	0	0	1
Geologist III	2	8	0	0	10
Geologist IV	1	8	0	0	9
Geologist V	0	4	0	0	4
Geologist VI	0	1	0	0	1
Internet Specialist II	0	1	0	0	1
Micro/Network Spec I	0	2	0	0	2
Natural Resource Tech II	0	1	0	0	1
Publications Spec II	0	1	0	0	1
Publications Spec III	0	1	0	0	1
Totals	**3**	**41**	**0**	**0**	**44**